

Amendments to the Claims

Please cancel Claims 19 and 21 without prejudice or disclaimer.

Please amend Claims 1-18, 20 and 22-38 to read as follows.

1. (Currently Amended) A method of ~~extracting~~ recognizing an image area of interest ~~in an inputted image from compressed image data through a process for reconstructing decompressed image data from the compressed image data~~, comprising the steps of:

acquiring spatial frequency information and chromaticity information for respective predetermined blocks from the ~~inputted~~ compressed image data; and

searching for the image area of interest ~~in from the inputted~~ compressed image data using the acquired spatial frequency information and chromaticity information.

2. (Currently Amended) A method according to claim 1, ~~wherein said inputted image comprises compressed image data~~; further comprising a step of decompressing the compressed image data, and wherein in said acquiring step, the spatial frequency information and chromaticity information are acquired from the decompressed image data.

3. (Currently Amended) method according to claim 2, further comprising the steps of: acquiring quantization parameters for decompression; and  
stopping extraction of the image area of interest in accordance with said the acquired quantization parameters.

4. (Currently Amended) A method according to claim 2, wherein ~~said~~ the compressed image data comprises JPEG image data and the decompressed image data includes DCT coefficients and bit map data.

5. (Currently Amended) A method according to claim 1, wherein said searching step comprises the steps of:

extracting consecutive blocks having a predetermined range of chromaticity ~~value~~ values; and

determining whether or not ~~said~~ the extracted consecutive blocks are the image area of interest based on an average of spatial frequency ~~value~~ values within ~~said~~ the extracted consecutive blocks.

6. (Currently Amended) A method according to claim 5, wherein a threshold level for determining whether or not ~~said~~ the extracted consecutive blocks are the image area of interest is changed in accordance with a size of image to be extracted.

7. (Currently Amended) A method according to claim 5, wherein said searching step further comprises a step of selecting candidates of the image area of interest based on a number of ~~said~~ the extracted consecutive blocks.

8. (Currently Amended) A method according to claim 7, wherein a threshold level for selecting candidates of the image area ~~on~~ of interest is changed in accordance with a size of image to be extracted.

9. (Currently Amended) A method of ~~reconstructing an~~ recognizing an image area of interest from compressed image data and decoding image data from inputted the compressed image data, through a process for reconstructing decompressed image data from the compressed image data, comprising the steps of:

~~extracting~~ recognizing an image area of interest ~~in an inputted image having said inputted from the~~ compressed image data; and

reconstructing an image with correction of image data in the image area of interest to a predetermined value,

wherein said ~~extracting~~ recognizing step ~~comprising~~ comprises the steps of:

acquiring spatial frequency information and chromaticity information for respective predetermined blocks from the ~~inputted~~ compressed image data; and

searching for ~~an the~~ image area of interest ~~in an inputted from the compressed~~ image data using the acquired spatial frequency information and chromaticity information.

10. (Currently Amended) A method according to claim 9, wherein said ~~the~~ predetermined value comprises a predetermined chromaticity value.

11. (Currently Amended) A method according to claim 9, wherein said extracting recognizing step further comprises a step of decompressing the inputted compressed image data, and wherein in said acquiring step, the spatial frequency information and chromaticity information are acquired from the decompressed image data.

12. (Currently Amended) A method according to claim 11, further comprising the steps of:

acquiring quantization parameters for decompression; and

stopping extraction of the image area of interest in accordance with said the acquired quantization parameters.

13. (Currently Amended) A method according to claim 11, wherein said the compressed image data comprises JPEG image data and the decompressed image data includes DCT coefficients and bit map data.

14. (Currently Amended) A method according to claim 9, wherein said searching step comprises the steps of:

extracting consecutive blocks having a predetermined range of chromaticity value; and

determining whether or not said the extracted consecutive blocks are the image area of interest based on an average of spatial frequency value values within said the extracted consecutive blocks.

15. (Currently Amended) A method according to claim 14, wherein a threshold level for determining whether or not ~~said the~~ extracted consecutive blocks are the image area of interest is changed in accordance with a size of image to be extracted.

16. (Currently Amended) A method according to claim 14, wherein said searching step further comprises a step of selecting candidates of the image area ~~on~~ of interest based on a number of ~~said the~~ extracted consecutive blocks.

17. (Currently Amended) A method according to claim 16, wherein a threshold level for selecting candidates of the image area ~~on~~ of interest is changed in accordance with a size of image to be extracted.

18. (Currently Amended) A computer program stored in a computer-readable medium for ~~making~~ causing a computer to execute the method according to claim 1.

19. (Canceled)

20. (Currently Amended) A computer program stored in a computer-readable medium for ~~making~~ causing a computer to execute the method according to claim 9.

21. (Canceled)

22. (Currently Amended) An image processing apparatus ~~of extracting for recognizing~~  
an image area of interest ~~in an inputted image~~ from compressed image data through a process  
for reconstructing decompressed image data from the compressed image data, comprising:

~~first~~ acquiring means for acquiring spatial frequency information and chromaticity  
information for respective predetermined blocks from the ~~inputted~~ compressed image data;  
and

searching means for searching for the image area of interest ~~in the inputted image~~ from  
the compressed image data using the spatial frequency information and chromaticity  
information acquired by said ~~first~~ acquiring means.

23. (Currently Amended) An apparatus according to claim 22, ~~wherein said inputted~~  
~~image comprises compressed image data~~, further comprising decompressing means ~~of for~~  
decompressing the compressed image data, ~~and~~ wherein in said acquiring step, the spatial  
frequency information and chromaticity information are acquired from the decompressed  
image data.

24. (Currently Amended) An apparatus according to claim 23, further comprising:  
second acquiring means for acquiring quantization parameters for decompression; and  
stopping means for stopping extraction of the image area of interest in accordance with  
said the quantization parameters acquired by said second acquiring means.

25. (Currently Amended) An apparatus according to claim 23, wherein ~~said~~ the compressed image data comprises JPEG image data and the decompressed image data includes DCT coefficients and bit map data.

26. (Currently Amended) ~~A method~~ An apparatus according to claim 22, wherein said searching means comprises:

extracting means for extracting consecutive blocks having a predetermined range of chromaticity ~~value~~ values; and

determining means for determining whether or not ~~said~~ the extracted consecutive blocks are the image area of interest based on an average of spatial frequency ~~value~~ values within ~~said~~ the extracted consecutive blocks.

27. (Currently Amended) An apparatus according to claim 26, wherein a threshold level for determining whether or not ~~said~~ the extracted consecutive blocks are the image area of interest is changed in accordance with a size of image to be extracted.

28. (Currently Amended) An apparatus according to claim 26, wherein said searching means further comprises selecting means for selecting candidates of the image area ~~on~~ of interest based on a number of ~~said~~ the extracted consecutive blocks.

29. (Currently Amended) An apparatus according to claim 28, wherein a threshold

level for selecting candidates of the image area ~~on~~ of interest is changed in accordance with a size of image to be extracted.

30. (Currently Amended) An image processing apparatus for ~~reconstructing an~~ recognizing an image area of interest from compressed image data and decoding image data from ~~inputted the~~ compressed image data, through a process for reconstructing decompressed image data from the compressed image data, comprising:

~~extracting~~ recognizing means for ~~extracting~~ recognizing an image area of interest in ~~an~~ inputted image having said inputted ~~from the~~ compressed image data; and

~~reconstructing~~ means for reconstructing an image with correction of image data in the image area of interest to a predetermined value,

wherein said ~~extracting~~ recognizing means ~~comprising~~ comprises:

~~first~~ acquiring means for acquiring spatial frequency information and chromaticity information for respective predetermined blocks from the ~~inputted~~ compressed image data; and

~~searching~~ means for searching for ~~an~~ the image area of interest in ~~an inputted~~ from the compressed image data using the acquired spatial frequency information and chromaticity information.

31. (Currently Amended) An apparatus according to claim 30, wherein said ~~the~~ predetermined value comprises a predetermined chromaticity value.



32. (Currently Amended) An apparatus according to claim 30, wherein said extracting recognizing means further comprises decompressing means for decompressing the inputted compressed image data, and wherein said first acquiring means acquires the spatial frequency information and chromaticity information from the decompressed image data.

33. (Currently Amended) An apparatus according to claim 32, further comprising :  
second acquiring means for acquiring quantization parameters for decompression; and  
stopping means for stopping extraction of the image area of interest in accordance with  
said the acquired quantization parameters.

34. (Currently Amended) An apparatus according to claim 32, wherein said the compressed image data comprises JPEG image data and the decompressed image data includes DCT coefficients and bit map data.

35. (Currently Amended) An apparatus according to claim 30, wherein said searching step means comprises the steps of:

extracting means for extracting consecutive blocks having a predetermined range of chromaticity value values; and

determining means for determining whether or not said the extracted consecutive blocks are the image area of interest based on an average of spatial frequency value values within said the extracted consecutive blocks.

36. (Currently Amended) An apparatus according to claim 35, wherein a threshold level for determining whether or not ~~said the~~ the extracted consecutive blocks are the image area of interest is changed in accordance with a size of image to be extracted.

37. (Currently Amended) An apparatus according to claim 34, wherein said searching ~~step~~ means further comprises ~~a step of~~ means for selecting candidates of the image area ~~on~~ of interest based on a number of ~~said the~~ the extracted consecutive blocks.

38. (Currently Amended) An apparatus according to claim 37, wherein a threshold level for selecting candidates of the image area ~~on~~ of interest is changed in accordance with a size of image to be extracted.